

In the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-29 are canceled.

30. (Currently Amended) A method for providing or sharing or jointly using a single mobile radio access network by several mobile radio providers, comprising the steps of

providing the single mobile radio access network (9; 12) for joint use by several mobile radio providers, wherein for differentiating between a plurality of core networks (6, 7; 10, 11) of the different mobile radio providers, a respective identity of the network operator (PLMN identity) is provided on a single organization channel BCCH;

transmitting on the single organization channel BCCH more than one PLMN identity in a mobile radio system; wherein when transmitting a connection request to the radio access network (9; 12) ~~the a~~ a subscriber/the a subscriber terminal (13) selects a PLMN identity from the PLMN identities transmitted on the single BCCH channel, with which of the different core networks (6, 7; 10, 11) or PLMNs, respectively, the connection is to be set up, without changing the radio access network (9; 12); the mobile radio access network (9; 12) is configured for transmitting the more than one PLMN identity on the single BCCH channel and receiving the connection request including the selected PLMN identity from the PLMN identities transmitted on the single BCCH channel.

31. (Previously Presented) The method according to claim 30, wherein network elements of the core network (6, 7; 10, 11) required for providing the mobile radio services are separately provided by each of the mobile radio providers.

32. (Previously Presented) The method according to claim 30, wherein network elements of the core network (6, 7; 10, 11) (CN) are used for providing voice connections, whereas other network elements for providing IP connections (packet network) are each provided by the different operators.
33. (Previously Presented) The method according to claim 30, wherein the more than one PLMN identity is transmitted in a single Master Information Block (MIB) or System Information Block (SIB1) on the BCCH of a mobile radio system operating according to a UMTS standard, or core network information of more than one core network is transmitted in the single Master Information Block (MIB) or the System Information Block 1 (SIB1), or the more than one PLMN identity or core network information is transmitted in a different System Information Block other than the Master Information Block (MIB) or the System Information Block 1 (SIB1) on the BCCH of a mobile radio system operating according to the UMTS standard.
34. (Previously Presented) The method according to claim 30, wherein the more than one PLMN identity is transmitted in a different block other than a System Information Type 3 (SIB3) on the BCCH of a mobile radio system operating according to a GSM standard.
35. (Previously Presented) The method according to claim 30, wherein when a connection is requested, the subscriber/the subscriber terminal (13) notifies the radio access network (9; 12) of the different core networks (6, 7; 10, 11) or PLMNs with which the connection is to be set up.
36. (Previously Presented) The method according to claim 30, wherein when a connection is requested, the subscriber/the subscriber terminal (13) notifies the radio access network (9; 12) of the different core networks (6, 7; 10, 11) with which the connection is to be set up, and that this notification occurs with the transmission of the PLMN ID in the RRC CONNECTION REQUEST or the INITIAL DIRECT TRANSFER message in a mobile radio system operating according to a UMTS standard.

37. (Previously Presented) The method according to claim 30, wherein when a connection is requested, the subscriber/the subscriber terminal (13) notifies the radio access network (9; 12) of the different core networks (6, 7; 10, 11) with which the connection is to be set up, and that this notification occurs with the transmission of the PLMN ID in the RRC CONNECTION REQUEST or the INITIAL DIRECT TRANSFER message in a mobile radio system operating according to a UMTS standard, wherein the PLMN identity is provided as MCC + MNC.
38. (Previously Presented) The method according to claim 30, wherein when a connection is requested, the subscriber/the subscriber terminal (13) notifies the radio access network (9; 12) of the different core networks (6, 7; 10, 11) with which the connection is to be set up, and that this notification occurs with the transmission of the network operator ID (PLMN ID) in the RRC CONNECTION REQUEST or the INITIAL DIRECT TRANSFER message in a mobile radio system operating according to a UMTS standard, wherein only a MNC of the PLMN identity is transmitted.
39. (Previously Presented) The method according to claim 30, wherein when a connection is requested, the subscriber/the subscriber terminal (13) notifies the radio access network (9; 12) of the different core networks (6, 7; 10, 11) with which the connection is to be set up, and that this notification occurs with the transmission of the network operation ID (PLMN ID) in the RRC CONNECTION REQUEST or the INITIAL DIRECT TRANSFER message in a mobile radio system operating according to a UMTS standard, wherein the PLMN identity is represented by an integer (1,2, 3...n) or a bit string (e.g., "001"), and the actual PLMN identity is determined from the sequential order of transmission of the different PLMN identities on the BCCH.
40. (Previously Presented) The method according to claim 30, wherein when a connection is requested, the subscriber/the subscriber terminal (13) notifies the radio access network (9; 12) of the different core networks (6, 7; 10, 11) with which the connection is to be set

up, and that this notification occurs with the transmission of the network operator ID (PLMN ID) neither in the RRC CONNECTION REQUEST nor the INITIAL DIRECT TRANSFER message in a mobile radio system operating according to a UMTS standard.

41. (Previously Presented) The method according to claim 30, wherein the more than one PLMN ID is transmitted in a System Information Block 1 (SIB1) on the BCCH of a mobile radio system operating according to a UMTS standard or core network information of more than one core network is transmitted within an SIB1.
42. (Previously Presented) The method according to claim 30, wherein a signal represented by a single bit is transmitted on the organization channel (BCCH) of the radio access network (9; 12) to indicate if the radio access network resources administration unit provides the connection request of the subscriber/the subscriber terminal (13) with one of the core networks (6, 7; 10, 11) based on a IMSI of the subscriber terminal ("default" selection based on the subscriber IMSI).
43. (Previously Presented) The method according to claim 30, wherein a signal represented by a single bit is transmitted on the organization channel (BCCH) of the radio access network (9; 12) to indicate if the radio network resources administration unit provides the connection request of the subscriber/the subscriber terminal (13) with one of the core networks (6, 7; 10, 11) based on a IMSI of the subscriber terminal ("default" selection based on the subscriber IMSI), and the "default" signaling is selected based on the IMSI, or the mobile radio network operator ID (e.g., PLMN ID) is transmitted by signaling one bit on the organization channel (BCCH).
44. (Previously Presented) The method according to claim 30, wherein more than one mobile radio network operator ID (PLMN ID) is transmitted to a subscriber terminal (13) in a mobile radio network operating according to a UMTS or GSM standard.

45. (Previously Presented) The method according to claim 30, wherein the additional mobile network operator IDs (PLMN IDs) and hence of network operators, which the subscriber terminal (13) is potentially permitted to use, is transmitted through dedicated signaling between radio access network (9; 12) or core network (6, 7; 10, 11) and the subscriber terminal (13).

46. (Previously Presented) The method according to claim 30, wherein additional PLMN IDs are always transmitted when a subscriber terminal (13) logs on to a mobile radio network for the purpose of registration, actually uses a service, or indicates its actual location to the mobile radio network.

47. (Previously Presented) The method according to claim 30, wherein additional possible mobile radio network operator IDs are transmitted according to a dedicated network-subscriber terminal relationship or based on a transmission on the organization channel BCCH, and this information is used by the subscriber terminal (13) in such a way that radio access resources of another mobile radio operator can be used in the same way as if they were part of the registered mobile radio network.

48. (Previously Presented) The method according to claim 30, wherein additional possible mobile radio network operator IDs are transmitted according to a dedicated network-subscriber terminal relationship, and following a connection request, a subscriber terminal (13) transmits the network operator ID (PLMN ID) to the radio access network control unit by using the method according to claim 30, and wherein the radio access network control unit provides the corresponding connections to the requested core networks (6, 7; 10, 11) of the mobile radio network operator.

49. (Currently Amended) A mobile radio system for operating several mobile radio networks, by using the method for providing or sharing or jointly using a mobile radio access network for joint use by several mobile radio providers according to claim 30, wherein the mobile radio networks comprise a common single radio access network (9; 12) but separate core networks (6, 7; 10, 11), the system comprising:

a single organizational channel BCCH in the radio access network (9; 12) for transmitting more than one mobile radio operator identity, PLMN identity, to a mobile radio subscriber (UE or MS); the radio access network (9; 12) is configured for transmitting the more than one PLMN identity on the single BCCH channel.

50. (Previously Presented) The system according to claim 49, wherein that at least one of the mobile radio networks comprises a core network element for CS and PS connections and a radio network control unit, wherein one radio network control unit is connected with more than one respective core network element for CS and PS connections.

51. (Previously Presented) The system according to claim 49, wherein one radio access network (RAN) is connected with more than one SGSN (for the PS domain).

52. (Previously Presented) The system according to claim 49, wherein one radio access network (RAN) is connected with more than one MSC (for the CS domain).

53. (Previously Presented) The method for selecting the core network elements of mobile radio networks according to claim 30, wherein the selection of the PLMN or of these core network elements is based on signaling default (yes or no) the selection by the subscriber terminal (13), based on the signaled PLMN ID.

54. (Previously Presented) The method according to claim 30, wherein the provided single radio access network (9; 12), operates according to a UMTS, CDMA 2000, or GSM standard.

55. (Previously Presented) The method according to claim 32, wherein network elements of the core network (6, 7; 10, 11) (CN) are commonly used for providing voice connections (MSC).

56. (Previously Presented) The method according to claim 46, wherein the service is in the context of a "PDP context activation."
57. (Previously Presented) The method according to claim 46, wherein the actual location to the mobile radio network is for moving subscriber terminals, through location registration procedures.
58. (Currently Amended) A method for providing or sharing or jointly using a single mobile radio access network by several mobile radio providers, comprising the steps of
providing the single mobile radio access network (9; 12) for joint use by several mobile radio providers, wherein for differentiating between a plurality of core networks (6, 7; 10, 11) of the different mobile radio providers, a respective identity of the network operator (PLMN identity) is provided on a single organization channel BCCH;
transmitting on the single organization channel BCCH more than one PLMN identity in a mobile radio system; wherein when transmitting a connection request to the radio access network (9; 12) the subscriber/the subscriber terminal (13) selects a PLMN identity from the PLMN identities transmitted on the single BCCH channel, with which of the different core networks (6, 7; 10, 11) or PLMNs, respectively, the connection is to be set up, without changing the radio access network (9; 12); the mobile radio access network (9; 12) is configured for transmitting the more than one PLMN identity on the single BCCH channel and receiving the connection request including the selected PLMN identity from the PLMN identities transmitted on the single BCCH channel.
59. (Previously Presented) The method according to claim 30, wherein the more than one PLMN ID is transmitted in a single Master Information Block (MIB) on the BCCH of the mobile radio system operating according to a UMTS standard or core network information of more than one core network is transmitted within the single Master Information Block (MIB).

60. (Previously Presented) The method according to claim 30, wherein the more than one PLMN ID is transmitted in System Information Type 3 (SI3) according to a GSM standard.
61. (Previously Presented) The method according to claim 58, wherein the more than one PLMN ID is transmitted in a single Master Information Block (MIB) on the BCCH of the mobile radio system operating according to a UMTS standard or core network information of more than one core network is transmitted within the single Master Information Block (MIB).
62. (Previously Presented) The method according to claim 58, wherein the more than one PLMN ID is transmitted in System Information Type 3 (SI3) according to a GSM standard.